Vinay Parakala

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EDUCATION

UC BERKELEY
Electrical Engineering, Computer Science
Expected Spring 2019 | Berkeley, CA
Dept. GPA: 3.5

METHACTON HIGH SCHOOL
Grad. June 2015 | Eagleville, PA

LINKS

Github:// **vparakala**
LinkedIn:// **in/vinay-parakala**

COURSEWORK

MATH
Multivariable Calculus
Linear Algebra
Differential Equations
Discrete Math/Probability

ELECTRICAL ENGINEERING
Designing Information Devices and Systems I
Micromouse Robot Competition Seminar
Designing Information Devices and Systems II (current)

COMPUTER SCIENCE
Data Structures
Computer Architecture
Algorithms and Intractable Problems
Artificial Intelligence
Machine Learning (current)

SKILLS

PROGRAMMING
Proficient
Java • Shell • Python • C++
C# • Unity
Familiar
Apache Spark • Assembly • C
HTML/CSS • LaTeX • SQL
SciKit Learn • TensorFlow

EXPERIENCE

BLOOMBERG LP | Software Engineering Intern
June 2016 - August 2016, May 2017 - August 2017 | New York, NY

- Worked on the Natural Language Processing Team on Bloomberg's twitter
- Implemented a series of binary classifiers in C++ (spam, newsworthiness, salience) to filter the constant stream of live tweets ingested by the company
- Used python library Airflow to automate training and evaluation for the models of these three classifiers
- Summer 2016: Worked on table extraction team to extract data with the appropriate labels from talbes in financial documents

LANDSHIPS | Project team Member, VR at Berkeley
Sept 2016 – Present | Berkeley, CA

- Worked with a project team of six on a multiplayer, co-op, tank game in virtual reality using Unity3D
- Designed and created a tutorial to familiarize people with virtual reality
- Worked on back end programming the interactions the player can have with their surroundings in the game
- Worked on optimization of player movement tracking because the game was computationally intensive and latency was an issue

PROJECTS

FIND A BOOK Summer 2017

- Built a book search engine that converted books (in a library of over 35K books) into vectors using word embeddings and weights on words based on their frequency and their uniqueness to each book (Tf-Idf weighting)
- Used these vector representations of books to allow for searching whereby a user can enter a word or topic and the search engine will retrieve books whose vectors are most similar to the word embedding(s) of words entered by the user

IMAGE COMPRESSOR Fall 2016

- Built an image compressor that used DCT (discrete cosine transformation) to compress images
- Used MapReduce from Apache Spark to improve speed performance by over 100x compared to a standard approach with the same algorithm

BOGGLE SOLVER Spring 2016

- Built a solver for the word game Boggle, which finds words from consecutive blocks in a grid of letters
- Uses a trie to store a dictionary of words and A* to efficiently search through the grid and find words

MISCELLANEOUS

BERKELEY RESIDENT HALL ASSOCIATION | Secretary
Fall 2015-Spring 2016 | Berkeley, CA

- Elected and served as secretary of my dorm unit of 1200 people
- Created an electronic public announcement board to help spread news about upcoming events and deadlines
- Planned and managed a trip for the dorm residents to Six Flag, coordinating transportation, chaperones, and tickets